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REMARKS

In accordance with the foregoing, the specification and Claim 15 have been amended to address the objection raised in item 1 of the Office Action. Claims 11- 30 are pending and under consideration.

Claims 11, 14, 17, 18, and 21-24 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,128,486 to Keskitalo et al. Claims 12, 13, 16 and 19-24 are separately rejected as being obvious over Keskitalo et al. in view of additional references.

In the present invention, applicants are claiming

- a method for transmitting data,
- in which a data signal assigned to a subscriber is transmitted from at least two antenna devices using a diversity method,
- in which a reference signal assigned to the subscriber is transmitted from only one of the at least two antenna devices in order to make a positional determination for run time critical system parameters.

As described in the specification, one possible reason for using a different radio transmission approach for determining position is that great precision may be required. For example, paragraph [0012] of the specification mentions that the accuracy of a timing advance mechanism (TA) for positional determination is about 200 meters. On the other hand, paragraph [0014] of the specification describes that a very precise positional determination is necessary for synchronized handovers and pseudo-synchronized handovers.

As mentioned in the specification in paragraphs [0003]-[0005], for example, different diversity techniques can be used, in which the same signal is radiated from a plurality of antennas. For example, it is possible to radiate the signal from a plurality of antennas having the same polarization, to radiate the signal from a plurality of antennas using different polarizations, or to use a use combination thereof. With these techniques, an identical signal is emitted in parallel.

As described in paragraph [0017] of the application, for example, it is also possible to transmit a signal using and adaptive or intelligent antenna system, in which the signal is divided up into individual signal components for radiation through several antennas. With each signal component, there is an associated individual phase. In this manner, the signal components, which differ in phasing, are transmitted.

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If an adaptive antenna system with several antennas is used for receiving, it is possible on the basis of the phasing associated with each of the individual antennas, to learn the direction of the source of a subscriber signal.

Examiner Ly kindly granted the undersigned a telephone interview to discuss the application. The Examiner's time in preparing for and conducting the interview is gratefully appreciated. As discussed in the telephone conference, Keskitalo et al. discloses very few of the features discussed above. Keskitalo et al. relates to a receiving method, whereas the claims are directed to a transmission method. Specifically, Keskitalo et al. discloses determining a direction from which a signal is received using an adaptive antenna arrangement. See the abstract, column 1 lines 1-24 and 45-60, and column 2 lines 29-55 and 60- 63.

The claims require emitting a subscriber data signal assigned to a subscriber from at least two antenna devices using a diversity method. As discussed with the Examiner, column 1, lines 9-11 of Keskitalo et al. mention that base stations transmit and receive signals using an antenna array consisting of several antennas. Keskitalo et al. mentions using a diversity technique only in connection with receiving the signal. For example, column 4, line 42 mentions antenna diversity with regard to Fig. 3. Clearly, Fig. 3 relates to receiving a signal, not transmitting a signal.

The claims also require emitting a reference signal assigned to the subscriber from only one of the at least two antenna devices. The Examiner cites Fig. 1 of the reference. Fig. 1 certainly shows that the base station transmits signals to the mobile station. However, there is not reason to believe that any of signals 110, 112, 114 or 116 is a reference signal. Further, there is no reason to believe that any of the signals 110, 112, 114 or 116 is transmitted from only a single antenna. The excerpt at column 1, lines 9-11 teaches that signals are transmitted from an antenna array consisting of several elements. Accordingly, one would presume that each of signals 110, 112, 114 or 116 is transmitted from several antenna elements. Keskitalo et al. does not in any way suggest emitting a reference assigned to a subscriber from only one of the at least two antenna devices.

The claims further require measuring the propagation delay of the reference signal, which reference signal is emitted from only one of the at least two antenna devices. Column 6, lines 34-38 of the reference indicate that the base station can obtain distance information from the propagation delay of the signal. There is no reason to believe that Keskitalo et al. is using any special method for determining propagation delay. Presumably, Keskitalo et al. is using a timing advance mechanism, or one of the other known techniques. It is improper to assume that

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Keskitalo et al. uses any particular method for determining propagation delay. It is certainly improper to assume that Keskitalo et al. determines propagation delay by using a reference signal emitted from only one of the at least two antenna devices.

The remaining references are cited only for additional limitations of the respective dependant claims. These references do not compensate for deficiencies discussed above with regard to Keskitalo et al.

In view of the foregoing remarks, it is submitted that the prior art rejections should be withdrawn. Claims 15 and 25-30 have been allowed. It is therefore believed that the application is in condition for allowance. An early action to that effect is courteously solicited. If the application is not allowed and the Examiner issues another Office Action, then the next Office Action should be a non-final Office Action. That is, applicants amendments do not necessitate a new ground of rejection. Only the deficiencies in the references cited by the Examiner could necessitate a new ground for rejection.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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on Nov 10, 2005

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